

## Abstract

A thin and uniform nonwoven fabric air filter for an internal combustion engine with a pleated form which comprises an air-laid nonwoven fabric obtained by forming a plurality of layers mainly composed of polyester-based binder fibers having a fiber length of 1 to 10 mm by an air-laid nonwoven fabric production process and performing heat adhesion, wherein an upper layer side (fluid inflow side) comprises large fibers, a lower layer side (fluid outflow side) comprises fine fibers, a final fluid outflow side comprises 100% of the polyester-based binder fibers, the basis weight (METSUKE) is from 100 to 350 g/m<sup>2</sup>, the apparent density is from 0.04 g/cm<sup>3</sup> to 0.3 g/cm<sup>3</sup>, and the dry-heat shrinkage factor after 300 hours at 100°C is 3% or less. The air filter induces no environmental pollution, is high in dust collection efficiency, and has long life.